

AMENDMENT(S) TO THE SPECIFICATION

Please replace the paragraph beginning at page 2, line 10, with the following rewritten paragraph:

An aim of such installations is to detect not only the presence of an object but also its identity. One possibility consists in permanently monitoring the position of each object by means of a ~~superusing supervising~~ control unit. If an object is detected in a given position, the control unit can determine the identity of the object through its knowledge of the positions of all objects. The disadvantage of this approach is that it requires a complete surveillance of all objects by a central unit, thereby creating high demands with respect to the corresponding interlinking and a considerable delay in the detection.

Please replace the paragraph beginning at page 3, line 29, with the following rewritten paragraph:

A photonic element is defined as an element having a so-called photonic band gap. A photonic band gap ~~is~~ characterized by the fact that light whose wavelength resp. ~~or~~ energy is located within the band gap cannot propagate in the photonic element. Such light will be reflected by the photonic element while it is transparent for other light. The location of this band gap can be rendered adjustable by suitable measures. One known measure is to embed a nematic and/or ferroelectric liquid crystal material in the photonic element. When an electric voltage is applied, the optical properties of the liquid crystal change and the band gap is simultaneously shifted by a however small frequency difference. Due to the steep flanks of the photonic band gap, it is nevertheless possible in this manner to achieve a complete turning of the photonic crystal, i.e. for incident light whose frequency corresponds to the band gap, more particularly for a laser beam of such a frequency, the properties of the photonic element can be switched from transparent to reflecting.